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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,267	02/12/2002	Steve John Schray	061408.2001-102	5015

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EXAMINER

ARTMAN, THOMAS R

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/074,267

Applicant(s)

SCHRAY, STEVE JOHN

Examiner

Thomas R Artman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Barlow (US 4,900,123).

Regarding claim 1, Barlow discloses an optical fiber enclosure, including:

- 1) a housing with a front compartment (in front of item 116), a rear compartment (behind item 116), a first and second side;
- 2) a plurality of optical fiber cassettes (item 42) mounted on a bulkhead, and
- 3) at least one splice module (on drawer).

Claims 1, 4-6 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ray (US 6,009,225).

Regarding claim 1, Ray discloses an optical fiber enclosure (Fig.2) comprising:

- 1) a housing (cover removed for clarity) having a front compartment (splice tray area), a rear compartment (slack fiber management area), a first and second side, and a bulkhead (item 33);
- 2) a plurality of optical fiber cassettes mounted to the bulkhead (item 33), and
- 3) at least one splice module.

Regarding claims 4 and 12, Ray discloses a splice module (Fig.2) that includes:

- 1) a management plate (item 51), and
- 2) a hingedly joined splice door (item 60).

With respect to claims 6 and 13, Ray's splice door includes a removable splice tray (item 65) for mounting optical fiber splices and managing excess fiber.

In regards to claims 5 and 14, Ray shows another hingedly joined splice door (item 37) that has optical fiber splices mounted directly onto the door.

With regards to claim 15, the device is integrated into an optical fiber enclosure.

Claims 1, 7-9 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Vidacovich (US 5,402,515).

Regarding claim 1, Vidacovich discloses an optical fiber enclosure, including:

- 1) a housing (Fig.7) having a front compartment (right side of figure), a rear compartment (left side of figure), a first and second side and a bulkhead,
- 2) a plurality of optical fiber cassettes mounted to the bulkhead (see Figs.2 and 3 for clarity), and
- 3) at least one splice module (see Fig.6).

With respect to claim 7, Vidacovich includes at least one fiber radius guide mounted to the housing (see Fig.7, item 102).

In regards to claim 8, Vidacovich includes at least one removable panel connected to the bulkhead (item 22 of Fig.2).

With regards to claim 9, at least one optical fiber port on both sides exists.

Regarding claim 16, Vidacovich discloses a fiber radius guide (item 18 of Fig.1), including:

- 1) a body with a first and second end, the first end having a pair of fixed supports extending therefrom, and the second end having a second support member extending therefrom (the tabs sticking up at either end of item 18); and

2) a hood (the portion where the arrow for labeling element 18 is drawn).

Regarding claim 17, Vidacovich discloses an adapter in Fig.5 that includes a body and at least one engagement member.

Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Petrunia (US 5,212,761).

Petrunia discloses a fiber optic cassette (Fig.2) that includes:

- 1) a plurality of adapters (item 20),
- 2) a plurality of optical fiber connectors (item 30),
- 3) a front face, side wall and rear face,
- 4) at least one fan-out device (item 25), and
- 5) at least one fiber optic ribbon pigtail.

Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Braga (US 6,363,198).

Braga discloses a fiber radius guide (Fig.7), including:

- 1) a body having a first and second end, the first end having a pair of first supports extending therefrom (not labeled, near the arrow pointing left), the second end having a second support member extending therefrom (the right portion of the clip), and
- 2) a hood (the wide, radiused portion).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrunia.

Petrunia's cassette structure includes:

- 1) connectors that terminate the individual fibers and are connected to the adaptors which are mounted to the front face of the cassette, and
- 2) the side wall that is attached between the front and rear faces of the cassette in order to allow fiber management.

Though Petrunia's fan-out device is attached to the side wall rather than the rear face of the cassette, it would have been obvious to one of ordinary skill in the art at the time the invention was made that this is merely a non-essential re-arrangement of parts. One skilled in the art would recognize that such a variation in position between the claimed invention and the prior art has no distinct importance in the proper functioning of the device. The only criticality involved requires that the fan-out member should be positioned near an excess fiber storage section in order to accommodate the slack between the fan-out member and the connectors. Both the claimed invention and the prior art arrangements adequately serve that function.

Claims 2-3 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vidacovich and in view of Petrunia (US 5,212,761).

Regarding claim 2, Vidacovich discloses a fiber cassette (Fig.4) that includes:

- 1) a plurality of adapters (item 62),
- 2) a plurality of fiber optic connectors (item 58),
- 3) a front face, side wall and rear face.

Vidacovich does not specifically disclose a ribbon pigtail and a fan-out device for accommodating it. However, given the various applications in optical signal routing that Vidacovich's cassette is designed to perform, one skilled in the art would readily recognize that it would be advantageous for Vidacovich's cassette to be able to accommodate a ribbon cable. Ribbon cables are quite common in the art and are incorporated into fiber optic communication systems.

Petrunia teaches a ribbon fan-out member (item 25 of Fig.2) in an optical fiber cassette for use in interconnecting a ribbon cable to other cables in a fiber management system. One skilled in the art would readily recognize that the addition of Petrunia's fan-out member would allow Vidacovich's cassette to easily accept a ribbon cable, thus improving the versatility of the cassette.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vidacovich's fiber cassette to include a ribbon fan-out device in order to improve the versatility of the device by being able to accommodate fiber optic ribbon cables.

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Regarding claim 3, Vidacovich's cassette has the structural arrangements, including:

- 1) input fibers (item 34) that are terminated by the connectors that are connected to the adapters, and the adapters are mounted on a front face of the cassette, and
- 2) the side wall is attached between the front and rear faces in order to allow for storing slack fiber between the input and the connectors.

Given the prior art combination in the above rejection of claim 2, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place Petrunia's fan-out module on the rear face of Vidacovich's cassette near the input fibers. Though this arrangement is not specifically shown by Petrunia, it was argued above in the rejection of claim 11 that the precise position of the fan-out module is insignificant insofar as there is slack fiber storage available in that position. It would be readily apparent one skilled in the art that placement in the rear of the cassette satisfies that function without inhibiting the remaining functionality of the device.

Regarding claim 18, Vidacovich discloses an optical fiber enclosure that includes:

- 1) a housing (Fig.7) having a front compartment (right side of figure), a rear compartment (left side of figure), a first and second side, a top and bottom surface, and a bulkhead,
- 2) a plurality of optical fiber cassettes,
- 3) the front compartment having a first optical management system with a front management plate (item 22 of Fig.2) and at least one fiber radius guide (item 102 of Fig.1), and

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4) the rear compartment having a second optical management system with a rear management plate (item 22 of Fig.2) (the front and rear portions both have similar management plates that have different cassettes attached to them).

As discussed before, Vidacovich does not disclose ribbon fan-out devices.

Petrunia teaches the use of ribbon fan-out devices (item 25 of Fig.2) as part of an optical fiber management system. As argued previously, one skilled in the art would appreciate the fact that an optical fiber management system would be amiss without being able to accommodate the commonly-used ribbon cables for routing and interconnecting the individual fibers to other fibers, patch cables, etc.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a plurality of ribbon fan-out devices in order to be able to accommodate ribbon cables. This greatly increases the flexibility of the fiber management system for integration with optical communication networks that use ribbon cables.

With respect to claim 19, one of Vidacovich's management plates is mounted to the top surface of the housing.

With respect to claim 20, Vidacovich includes the provision for having splice modules (Fig.6) included in the enclosure.

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Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Battey (US 6,542,688) discloses a splice management system with a ribbon fan-out portion. Janus (US 6,385,381) discloses a fiber management cabinet with front and back portions, splice module and adapters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R Artman whose telephone number is (703) 305-0203. The examiner can normally be reached on 8am - 5:30pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (703) 308-4858. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Thomas R. Artman
Patent Examiner
July 10, 2003



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